

“CORRELATION BETWEEN PERIPHERAL SMEAR, BONE MARROW AND FLOWCYTOMETRY IN ACUTE LEUKEMIA”

INTRODUCTION:

Acute Leukemia forms a major proportion of hematopoietic neoplasms that are diagnosed worldwide. Acute Leukemias are classified into two groups, myeloid and lymphoid.

AIMS AND OBJECTIVES:

- To study the morphology of acute leukemia in peripheral smear and bone marrow aspiration.
- To study the immunophenotyping by flowcytometry in acute leukemia.
- To Correlate morphology and flowcytometry .

MATERIAL AND METHOD:

- Peripheral smear and bone marrow aspiration stained with leishman stain for morphological study in acute leukemia and using blood sample and bone marrow aspiration sample, flowcytometry is done in acute leukemia during the period from 2017 - 2018 .

RESULTS:

- In this study, Acute leukemia occurs at the age ranges between 10-80 years and mean age is 42 years.
- Male:Female ratio is 1.1:1 (male -53%, female-47%).

- In 30 cases, peripheral smear and bone marrow diagnosis made in 19 cases.
- Flowcytometry, diagnosis made in all 30 cases, 27(90%) were AML, 2 (7%)were ALL in that one is T-ALL and another B-ALL.one(3%) cases was diagnosed as mixed phenotype acute leukemia T lymphoid /myeloid.

CONCLUSION

Flowcytometry is considered superior to morphological diagnosis in cases of inconclusive initial diagnosis, subclassification of acute leukemia and in diagnosing mixed phenotype acute leukemia . But Morphological studies of peripheral blood and/or bone marrow is essential, whereby it aids a supporting hand to flowcytometric studies in appropriate selection of antibodies and to make cost effective.

KEY WORDS :

Acute leukemia, Flowcytometry, peripheral smear, bone marrow aspiration